

## Mussel Facts

**Phylum:** Mollusca

**Class:** Bivalvia

**Appearance:** A mussel is an invertebrate that consists of a soft body enclosed by a shell of two parts. They have no head and one foot. Mussel species are very diverse in color, and shell thickness can vary by where they live.

**Range:** There are over 300 recorded species of mussels throughout the United States. They are concentrated in the Southeast.

**Habitat:** Mussels live their entire adult life partly embedded in freshwater bodies. They are found at the bottom of streams, lakes and rivers. Mussels rarely move.

**Diet:** A mussel lives by removing oxygen from water through its gills, and by eating microorganisms (bacteria and protozoa). The microorganisms are moved across the surface of the gills by ciliary action. It moves to the mouth, then to the esophagus and finally to the stomach where it is digested.

**Growth:** Some mussel species can grow to be nine-inches-long and can live to be 100-years-old.

**Reproduction:** There are four stages of the mussel's development/life cycle: fertilization, glochidia, host living and free living. Fertilization occurs within the female. The gills of the mussel serve as brood pouches and respiratory organs for the egg. The egg then develops into a larvae, or glochidia. In order to continue the cycle, the glochidia must attach itself to a fish, or a host. To achieve this, the glochidia uses its mantle, which looks like a minnow to prospective hosts, to lure them towards it. The glochidia attaches itself to the fish, where it lives for one to six weeks as it develops its adult organs. The mussel then attaches itself and falls to the bottom of the freshwater body where it begins its free living life.

**Importance:** Mussels are natural indicators of water quality. If mussels cannot live in a waterway, it is probably unsafe for humans. They filter out the impurities from the water and are an important source of food for many fish, birds and mammals.

**Threats:** Nearly 70 percent of the 300 species are considered threatened or endangered. Dredging or altering waterways can destroy mussel habitat, and be harmful to the species. Nonindigenous mussels can act as competition for food, as well as space. Commercial exploitation has also been a major threat; mussels are used for to create cultured pearls and buttons used to be made of their shells.

**Conservation:** To help in the preservation of mussels, avoid using chemical agents that could contaminate the waterways. Also, report any pollution problems to the proper authority, and follow state collection laws.



*Pleurobema decisum*, Southern Clubshell